

96524  
96584

## Search Request Form

Scientific and Technical Information Center

Requester's Full Name: L. Eric Crane Examiner #: 65753 Date: 06/12/03Art Unit: 1623 Phone Number: 308-4639 Serial No. 09/610,281Mail Box & Bldg/Room Loc: 8D-14/CM-1 Results Format Preferred: PAPER  
[8B-19/CM-1]

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, key words, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and/or abstract.

Title of Invention: See attached copy of claims.Inventors (please provide full names): See attached copy of claims.Earliest Priority Filing Date: 05/20/1999

*\*For Sequence Searches only\* Please include all of the pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

(Claims 1-17) Please search for sustained release formulations of any "drug" or pharmaceutical wherein the compound "N,O-carboxymethylchitosan" is present as the part of the device which provides "adherence" to moist tissue.

(Claims 18-24) Please also search for medical devices wherein "N,O-carboxymethylchitosan" is present to effect adherence of tissue together presumably around the medical device. (Claims 25-26) The device may be referred to as a "surgical adhesion barrier."

\*\*\*\*\*  
**STAFF USE ONLY**

	Type of Search	Vendors/cost as applicable
Searcher: _____	NA Sequence(#) _____	STN _____
Searcher Phone #: _____	AA Sequence(#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr. Link _____
Date Completed: _____	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Full Text _____	Seq.Syst'ms _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other(Specify) _____

=> d ibib abs hitrn 19 1-2

L9 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1999:212790 HCAPLUS  
 DOCUMENT NUMBER: 130:257346  
 TITLE: Covalently linked N,O-carboxymethylchitosan  
 and uses thereof  
 INVENTOR(S): Elson, Clive M.  
 PATENT ASSIGNEE(S): Chitogenics, Inc., USA  
 SOURCE: U.S., 9 pp., Cont.-in-part of U.S. 5,679,658.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5888988	A	19990330	US 1997-852005	19970506
US 5679658	A	19971021	US 1995-436770	19950508
CA 2220505	AA	19961114	CA 1996-2220505	19960506
WO 9850050	A1	19981112	WO 1998-US9001	19980504
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1003526	A1	20000531	EP 1998-922090	19980504
R: AT, CH, DE, ES, FR, GB, IT, LI, SE				
JP 2001524156	T2	20011127	JP 1998-548311	19980504
PRIORITY APPLN. INFO.:			US 1995-436770	A2 19950508
			US 1997-852005	A 19970506
			WO 1998-US9001	W 19980504

AB Covalent compns. of N,O-carboxymethyl **chitosan** (NOCC) are disclosed. NOCC can be intra- or intermolecularly linked, either through a direct bond or through a bridging moiety. Also disclosed are methods for prep. and using the covalent NOCC compns. The NOCC compns. are useful in the administration of therapeutically active compds. and for wound management. An aq. soln. of 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide at pH 7-8 was added to an aq. NOCC soln. at pH 7-8 with vigorous stirring, and then an aq. soln. of N-hydroxysuccinimide was added to the mixt. The soln. was stirred until gelled; the reaction produced a gelatinous, form-filling hydrogel.

IT **107043-88-9P, N,O-Carboxymethylchitosan**  
 RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (covalently linked N,O-carboxymethylchitosan hydrogels for **drug delivery** and wound healing)

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1998:744960 HCAPLUS  
 DOCUMENT NUMBER: 129:344658  
 TITLE: Covalently linked N,O-carboxymethylchitosan  
 and its manufacture and uses  
 INVENTOR(S): Elson, Clive M.  
 PATENT ASSIGNEE(S): Chitogenics, Inc., USA  
 SOURCE: PCT Int. Appl., 27 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9850050	A1	19981112	WO 1998-US9001	19980504
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5888989	A1	19990330	US 1997-852005	19970506
EP 1003526	A1	20000531	EP 1998-922090	19980504
R: AT, CH, DE, ES, FR, GB, IT, LI, SE				
JP 2001524156	T2	20011127	JP 1998-548311	19980504
PRIORITY APPLN. INFO.:				
			US 1997-852005	A 19970506
			US 1995-436770	A2 19950508
			WO 1998-US9001	W 19980504

AB N,O-carboxymethylchitosan (NOCC) are intra- or intermolecularly linked, either through a direct bond or through a bridging moiety. Covalently linked NOCC is useful in the administration of therapeutically active compds. and for wound management. A typical linked NOCC was manufd. by dropwise addn. of an aq. soln. of 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide (I) at pH 7-8 to an aq. NOCC soln. at pH 7-8 with rapid stirring (NOCC-I mol ratio 10:1), and then the reaction mixt. was stirred until gelation occurred and allow to cure overnight .

IT 107043-88-9P, N,O-Carboxymethylchitosan  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(self-crosslinked N,O-carboxymethylchitosan for pharmaceutical dosage forms)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ind 19 1-2

L9 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS  
IC ICM A61K031-73  
ICS A61F002-00  
NCL 514055000  
CC 63-6 (Pharmaceuticals)  
ST crosslinked carboxymethyl chitosan hydrogel drug delivery; wound dressing crosslinked carboxymethyl chitosan hydrogel  
IT Drug delivery systems  
(carriers; covalently linked N,O-carboxymethylchitosan hydrogels for drug delivery and wound healing)  
IT Hydrogels  
Wound healing promoters  
(covalently linked N,O-carboxymethylchitosan hydrogels for drug delivery and wound healing)  
IT Medical goods  
(dressings; covalently linked N,O-carboxymethylchitosan hydrogels for drug delivery and wound healing)  
IT Adhesion, biological  
(post-surgical, inhibition of; covalently linked N,O-carboxymethylchitosan hydrogels for drug delivery and wound healing)  
IT 107043-88-9P, N,O-Carboxymethylchitosan  
RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(covalently linked N,O-carboxymethylchitosan hydrogels for drug delivery and wound healing)

L9 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS  
IC ICM A61K031-73  
ICS C08B037-08; A61F002-00  
CC 44-5 (Industrial Carbohydrates)  
Section cross-reference(s): 63  
ST crosslinked carboxymethylchitosan manuf; wound management  
crosslinked carboxymethylchitosan; pharmaceutical dosage form  
crosslinked carboxymethylchitosan  
IT Drug delivery systems  
(crosslinked N,O-carboxymethylchitosan for pharmaceutical  
dosage forms)  
IT Medical goods  
(dressings; self-crosslinked N,O-carboxymethylchitosan for  
wound management)  
IT 107043-88-9P, N,O-Carboxymethylchitosan  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
use); PREP (Preparation); USES (Uses)  
(self-crosslinked N,O-carboxymethylchitosan for  
pharmaceutical dosage forms)